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Appln. No. 09/775,760  
dated 02/02/2001  
Reply to Office Action of 09/15/2003



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RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
EXAMINING GROUP

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 09/775,760  
Applicant (s) : Mallon et. al.  
Filed : February 2, 2001  
TC/A.U. : 1623  
Examiner : Devesh Khare  
Title : Method of Preparing Modified Cellulose Ether  
Docket No. : UC 17795-2  
Customer No. : 35503

Confirmation No. 5787

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Sir:

**RESPONSE TO FINAL REJECTION**

In response to the Final Rejection dated September 15, 2003, rejecting Claims 33-51, please reconsider the above-identified application in view of the following remarks.

Claims 33-55 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Warzecha et al. (DE1668347) in view of Takahashi et al. (JP 1-149801) of record. Applicants respectfully traverse this rejection. Applicants submit that the somewhat lengthy claims 33 and 50 as well as the complex and sometimes unclear English translations of the German document Warzecha et al. and of the Japanese document

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Takahashi et al. may have somewhat mislead the Examiner when assessing the present invention and the prior art. For clarification purposes, the features of the process of the present invention and of the prior art processes are listed in the Table below.

From the Table below it will become readily apparent that

- according to the process of the subject invention a mixture of polysaccharide / cellulose ether, a basic compound (e.g. sodium hydroxide), organic solvent and a minor amount of other components is produced; the mixture is neutralized (e.g. with nitric acid or acetic acid); polysaccharide / cellulose ether is removed from the mixture, and the remaining liquid, which comprises a salt as a by-product (e.g. sodium nitrate or sodium acetate), is first subjected to a purification step and then to an electrodialysis step (emphasis added);

- in contrast thereto Takahashi et al. teach the electrodialysis of cellulose ether sodium salt.

The electrodialysis of a liquid left after separation of the polysaccharide / cellulose ether from this liquid to convert a salt (such as sodium nitrate or sodium acetate) into its corresponding acid and base is not described by Takahashi et al., neither separately nor in combination with the teaching of Warzecha et al.

The electrodialysis of the salt, which has been produced as a by-product according to the process of the present invention, allows recovery of the salt as acids and bases which can be recycled for use in the production of polysaccharide / cellulose ether. By the process of the present invention the unfavorable salt disposition can be avoided which has been done in prior art processes.

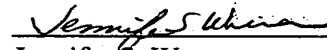
The process of the present invention as described above and advantages of the process claimed in the subject patent application are disclosed on pages 1 and 2 of the subject patent application under "Background of the invention".

Process of Claims 33/50	Process disclosed by Warzecha et al.	Process disclosed by Takahashi et al.
Polysaccharide/cellulose ether production (steps (i), (ii))	Production of hydroxyethyl cellulose	Production of cellulose ether sodium salt, such as carboxy methyl cellulose
Neutralization of reaction product (including polysaccharide/cellulose ether, solvent etc.) with an acidic compound (step iii)	<b>NO</b> neutralization of crude hydroxyethyl cellulose ( <i>page 3, last 4 lines and page 4, line 1</i> )	---
Separating Polysaccharide/cellulose ether from the neutralized liquid (step iv)	Crude products are scrubbed (washed) with 50-70 vol.% methanol and 50-30 vol.% acetone or isopropanol before neutralization, sodium hydroxide is removed to large extent from crude product ( <i>page 4, paragraph 3</i> )	---
	<b>Washing fluid is neutralized with acid.</b>	---
Salt is separated from organic solvent and residue of polysaccharide at alkaline pH. By removing volatile organics from the salt solution, a purified neutralized liquid is obtained (step a), <i>see page 9, paragraph 3 and page 10, para. 1 of specification</i>	Neutralized washing fluid is subjected to distillation ( <i>claim on page 5</i> ).	---
<b>Purified neutralized liquid is subjected to electrodialysis.</b> The neutralized liquid contains salts, such as sodium acetate, which are converted to acids and bases, such as acetic acid and sodium hydroxide, which can be recycled. ( <i>page 1, paragraph 3 and page 2, paragraph 1</i> )		<b>cellulose ether sodium salt is converted to acid-type cellulose by electrodialysis.</b> Acid can be converted to different cellulose ether salt, such as cellulose ether ammonium salt, by reaction with an acid or a salt ( <i>claim 1</i> ).

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In view of the above discussion and amendments favorable reconsideration of the application and allowance of all the claims is solicited.

Respectfully submitted,

  
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